

**AMENDMENTS TO THE CLAIMS:**

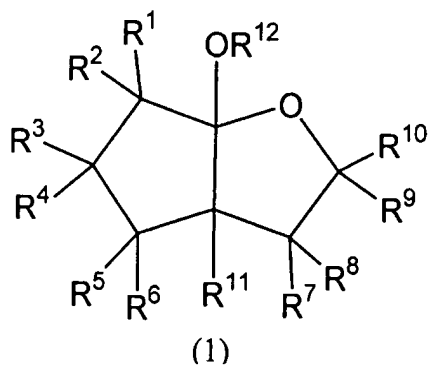
Please cancel claim 1 without prejudice or disclaimer, and amend claims 2-9, as follows.

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (Canceled).

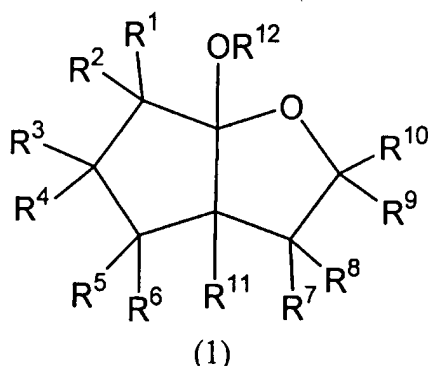
Claim 2 (Currently amended): A 2-oxabicyclo[3.3.0]octane compound of the following formula (1).



wherein R<sup>1</sup>-R<sup>10</sup> individually represent a hydrogen atom or a substituted or unsubstituted alkyl group having 1-20 carbon atoms, R<sup>11</sup> represents a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted alkynyl group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted cycloalkenyl group, a substituted or unsubstituted aryl group, formyl group, a substituted or unsubstituted acyl group, a substituted or unsubstituted alkoxycarbonyl group,

a substituted or unsubstituted alkenyloxycarbonyl group, a substituted or unsubstituted aryloxycarbonyl group, or a substituted or unsubstituted alkenyl group, and R<sup>12</sup> represents a substituted or unsubstituted hydrocarbon group, provided that when R<sup>11</sup> is a substituted or unsubstituted alkenyl group, R<sup>12</sup> is a chiral group ~~The compound according to claim 1, and~~ wherein R<sup>12</sup> is a substituted or unsubstituted chiralic secondary hydrocarbon group.

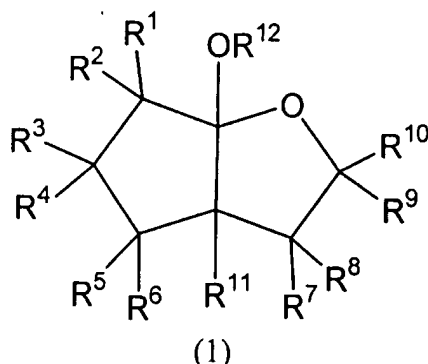
Claim 3 (Currently amended): A 2-oxabicyclo[3.3.0]octane compound of the following formula (1),



wherein R<sup>1</sup>-R<sup>10</sup> individually represent a hydrogen atom or a substituted or unsubstituted alkyl group having 1-20 carbon atoms, R<sup>11</sup> represents a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted alkynyl group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted cycloalkenyl group, a substituted or unsubstituted aryl group, formyl group, a substituted or unsubstituted acyl group, a substituted or unsubstituted alkoxycarbonyl group, a substituted or unsubstituted alkenyloxycarbonyl group, a substituted or unsubstituted

aryloxycarbonyl group, or a substituted or unsubstituted alkenyl group, and R<sup>12</sup> represents a substituted or unsubstituted hydrocarbon group, provided that when R<sup>11</sup> is a substituted or unsubstituted alkenyl group, R<sup>12</sup> is a chiral group ~~The compound according to claim 1, and~~ wherein R<sup>12</sup> is a chiralic secondary hydrocarbon group having a crosslinked structure or a chiralic secondary alkyl group substituted with an alkoxy carbonyl group.

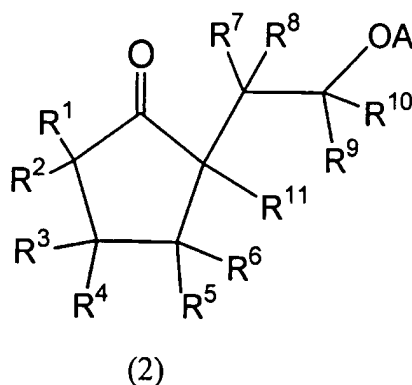
Claim 4 (Currently amended): ~~An~~ A method for optical resolution characterized by using an optical-resolution agent comprising at least one 2-oxabicyclo[3.3.0]octane compound of the following formula (1),



wherein R<sup>1</sup>-R<sup>10</sup> individually represent a hydrogen atom or a substituted or unsubstituted alkyl group having 1-20 carbon atoms, R<sup>11</sup> represents a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted alkynyl group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted cycloalkenyl group, a substituted or unsubstituted aryl group, formyl group, a substituted or unsubstituted acyl group, a substituted or unsubstituted alkoxy carbonyl group, a substituted or unsubstituted alkenyloxycarbonyl group, a substituted or unsubstituted

aryloxycarbonyl group, or a substituted or unsubstituted alkenyl group, and  $R^{12}$  represents a substituted or unsubstituted hydrocarbon group, provided that when  $R^{11}$  is a substituted or unsubstituted alkenyl group,  $R^{12}$  is a chiral group.

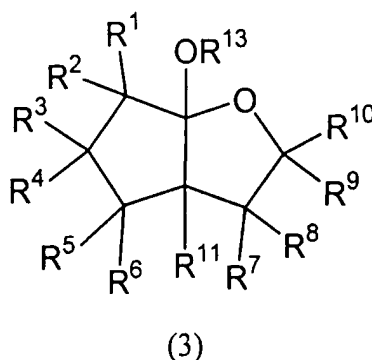
Claim 5 (Currently amended): A process for producing a 2-oxabicyclo[3.3.0]octane compound ~~according to claim 1~~ comprising reacting a cyclopentanone compound of the formula (2),



wherein ~~the  $R^+$ - $R^{++}$  groups are the same as in the formula (1)~~  $R^1$ - $R^{10}$  individually represent a hydrogen atom or a substituted or unsubstituted alkyl group having 1-20 carbon atoms,  $R^{11}$  represents a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted alkynyl group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted cycloalkenyl group, a substituted or unsubstituted aryl group, formyl group, a substituted or unsubstituted acyl group, a substituted or unsubstituted alkoxycarbonyl group, a substituted or unsubstituted

alkenyloxycarbonyl group, a substituted or unsubstituted aryloxycarbonyl group, or a substituted or unsubstituted alkenyl group and A is a hydrogen atom or a protective group for a hydroxyl group, with an optically active alcohol of the formula  $R^{12}OH$ , wherein  $R^{12}$  ~~is the same as in the formula (1)~~, represents a substituted or unsubstituted hydrocarbon group, provided that when  $R^{11}$  is a substituted or unsubstituted alkenyl group,  $R^{12}$  is a chiral group, in the presence of an acid catalyst.

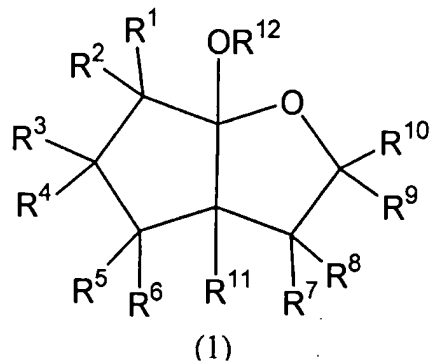
Claim 6 (Currently amended): A process for producing a 2-oxabicyclo[3.3.0]octane compound ~~according to claim 1~~ comprising reacting a 2-oxabicyclo[3.3.0]octane compound of the formula (3),



wherein ~~the  $R^+$ - $R^{++}$  groups are the same as in the formula (1)~~  $R^1$ - $R^{10}$  individually represent a hydrogen atom or a substituted or unsubstituted alkyl group having 1-20 carbon atoms,  $R^{11}$  represents a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted alkynyl group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted cycloalkenyl group, a substituted or unsubstituted aryl group, formyl group, a substituted or unsubstituted acyl

group, a substituted or unsubstituted alkoxy carbonyl group, a substituted or unsubstituted alkenyloxy carbonyl group, a substituted or unsubstituted aryloxy carbonyl group, or a substituted or unsubstituted alkenyl group and  $R^{13}$  is a substituted or unsubstituted hydrocarbon group, with an alcohol of the formula  $R^{12}OH$ , wherein  $R^{12}$  ~~is as defined above~~ represents a substituted or unsubstituted hydrocarbon group, provided that when  $R^{11}$  is a substituted or unsubstituted alkenyl group,  $R^{12}$  is a chiral group, in the presence of an acid catalyst.

Claim 7 (Currently amended): A method for separating a diastereomer mixture of 2-oxabicyclo [3.3.0]octane ~~compound~~ compounds according to claim 1 of the following formula (1),

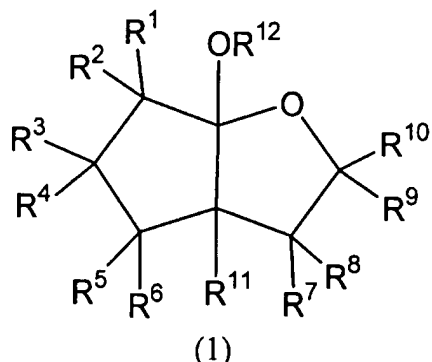


wherein  $R^1$ - $R^{10}$  individually represent a hydrogen atom or a substituted or unsubstituted alkyl group having 1-20 carbon atoms,  $R^{11}$  represents a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted alkynyl group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted cycloalkenyl group, a substituted or unsubstituted aryl group, formyl group, a substituted or unsubstituted acyl group, a substituted or unsubstituted alkoxy carbonyl group,

a substituted or unsubstituted alkenyloxycarbonyl group, a substituted or unsubstituted aryloxycarbonyl group, or a substituted or unsubstituted alkenyl group, and R<sup>12</sup> represents a substituted or unsubstituted hydrocarbon group, provided that when R<sup>11</sup> is a substituted or unsubstituted alkenyl group, R<sup>12</sup> is a chiral group,

comprising processing the diastereomer mixture of 2-oxabicyclo [3.3.0]octane ~~compound~~ compounds of the formula (1) using a simulated moving bed chromatography to separate into individual diastereomers.

Claim 8 (Currently amended): A method for separating a diastereomer mixture of 2-oxabicyclo [3.3.0]octane ~~compound~~ compounds according to claim 1 of the following formula (1),



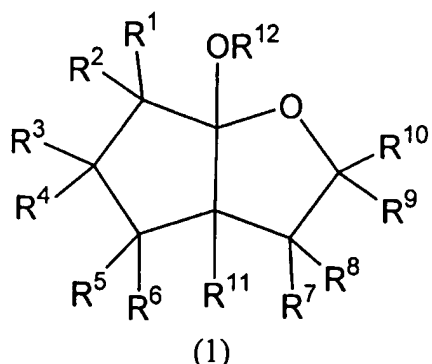
wherein R<sup>1</sup>-R<sup>10</sup> individually represent a hydrogen atom or a substituted or unsubstituted alkyl group having 1-20 carbon atoms, R<sup>11</sup> represents a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted alkynyl group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted cycloalkenyl group, a substituted or unsubstituted aryl group, formyl

group, a substituted or unsubstituted acyl group, a substituted or unsubstituted alkoxy carbonyl group, a substituted or unsubstituted alkenyloxy carbonyl group, a substituted or unsubstituted aryloxy carbonyl group, or a substituted or unsubstituted alkenyl group, and  $R^{12}$  represents a substituted or unsubstituted hydrocarbon group, provided that when  $R^{11}$  is a substituted or unsubstituted alkenyl group,  $R^{12}$  is a chiral group,

comprising distilling the diastereomer mixture of 2-oxabicyclo [3.3.0]octane ~~compound~~ compounds of ~~the above~~ formula (1) to separate into individual diastereomers.

Claim 9 (Currently amended): A method for optically resolving alcohol of the formula  $R^{14}OH$ , wherein  $R^{14}$  represents a substituted or unsubstituted hydrocarbon group having an asymmetric carbon atom, comprising,

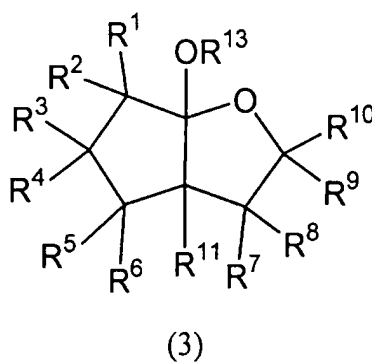
a step of separating a diastereomer mixture of 2-oxabicyclo [3.3.0]octane ~~compound~~ compounds according to claim 1 ~~of the following formula (1),~~





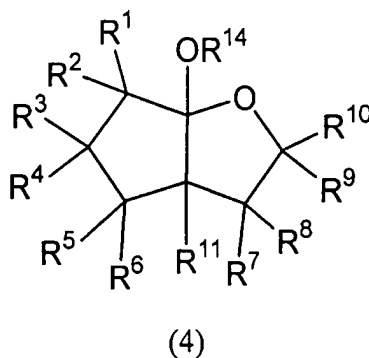
wherein  $R^1$ - $R^{10}$  individually represent a hydrogen atom or a substituted or unsubstituted alkyl group having 1-20 carbon atoms,  $R^{11}$  represents a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted alkynyl group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted cycloalkenyl group, a substituted or unsubstituted aryl group, formyl group, a substituted or unsubstituted acyl group, a substituted or unsubstituted alkoxy carbonyl group, a substituted or unsubstituted alkenyloxy carbonyl group, a substituted or unsubstituted aryloxy carbonyl group, or a substituted or unsubstituted alkenyl group, and  $R^{12}$  represents a substituted or unsubstituted hydrocarbon group, provided that when  $R^{11}$  is a substituted or unsubstituted alkenyl group,  $R^{12}$  is a chiral group into individual diastereomers,

a step of reacting one of the separated diastereomers with an alcohol of the formula  $R^{13}OH$ , wherein  $R^{13}$  is a substituted or unsubstituted hydrocarbon group, in the presence of an acid catalyst to obtain a 2-oxabicyclo[3.3.0]octane compound of the formula (3),



wherein  $R^1$ - $R^{11}$  are the same as in the formula (1) and  $R^{13}$  is as defined above,

a step of reacting the compound of the formula (3) with an optical isomer mixture of alcohol of the formula  $R^{14}OH$ , wherein  $R^{14}$  is as defined above, in the presence of an acid catalyst to obtain a diastereomer mixture of the formula (4),



wherein  $R^1$ - $R^{11}$  and  $R^{14}$  are the same as defined above,

a step of separating the resulting diastereomer mixture into individual diastereomers, and  
a step of reacting one of the separated diastereomers with an alcohol of the formula  $R^{15}OH$ , wherein  $R^{15}$  represents a substituted or unsubstituted hydrocarbon group, in the presence of an acid catalyst to obtain an optically active alcohol of the formula  $R^{14}OH$ , wherein  $R^{14}$  is as defined above.

Claim 10 (Original): The method according to claim 9, wherein the step of separating the diastereomer mixture of the compound of the above formula (4) into individual diastereomers comprises processing the diastereomer mixture using simulated moving bed chromatography to separate into individual diastereomers.

Claim 11 (Original): The method according to claim 9, wherein the step of separating the diastereomer mixture of the compound of the above formula (4) into individual diastereomers comprises distilling the diastereomer mixture to separate into individual diastereomers.

Claim 12 (Previously presented): The method according to claim 11, wherein the optical active alcohol of the formula  $R^{14}OH$ , wherein  $R^{14}$  is as defined above, and the compound of the above formula (3) are isolated by reacting the separated diastereomer of the compound of the formula (4) with an alcohol of the formula  $R^{13}OH$ , wherein  $R^{13}$  is as defined above, in the presence of an acid catalyst, and the isolated compound of the formula (3) is reused as an optical resolution agent of alcohol.

Claim 13 (Previously presented): The method according to claim 9, wherein the optical active alcohol of the formula  $R^{14}OH$ , wherein  $R^{14}$  is as defined above, and the compound of the above formula (3) are isolated by reacting the separated diastereomer of the compound of the formula (4) with an alcohol of the formula  $R^{13}OH$ , wherein  $R^{13}$  is as defined above, in the presence of an acid catalyst, and the isolated compound of the formula (3) is reused as an optical resolution agent of alcohol.

Claim 14 (Previously presented): The method according to claim 10, wherein the optical active alcohol of the formula  $R^{14}OH$ , wherein  $R^{14}$  is as defined above, and the compound of the

U.S. Patent Application Serial No. **10/520,282**  
Amendment filed February 11, 2008  
Reply to OA dated October 11, 2007

above formula (3) are isolated by reacting the separated diastereomer of the compound of the formula (4) with an alcohol of the formula  $R^{13}OH$ , wherein  $R^{13}$  is as defined above, in the presence of an acid catalyst, and the isolated compound of the formula (3) is reused as an optical resolution agent of alcohol.